

Strange particle visualization: (V^0 s and Cascades)

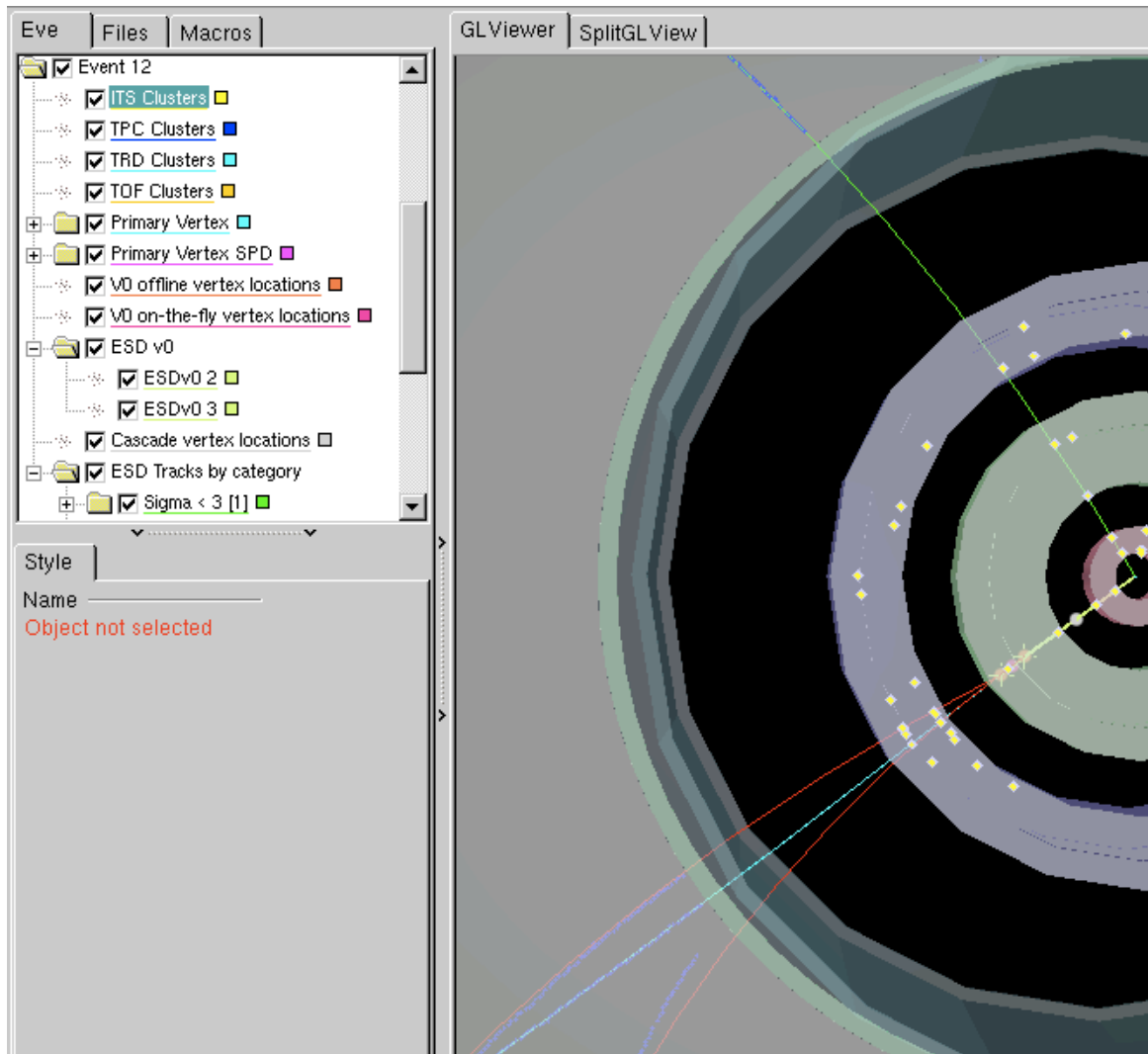
- 3. What was the status ? for the V^0 s... and for the Cascades...
- 4. Former projects... Cascades, displays, refits...
- 2. What are the needs ? detailed view, invariant mass selection
- 4. Roadmap and projects... Cascades, preferred displays, refits...

Matevz TADEL (CERN - GENEVA)
Boris HIPPOLYTE (IPHC - STRASBOURG)



What is the status ?

Some of the features are already implemented end of October

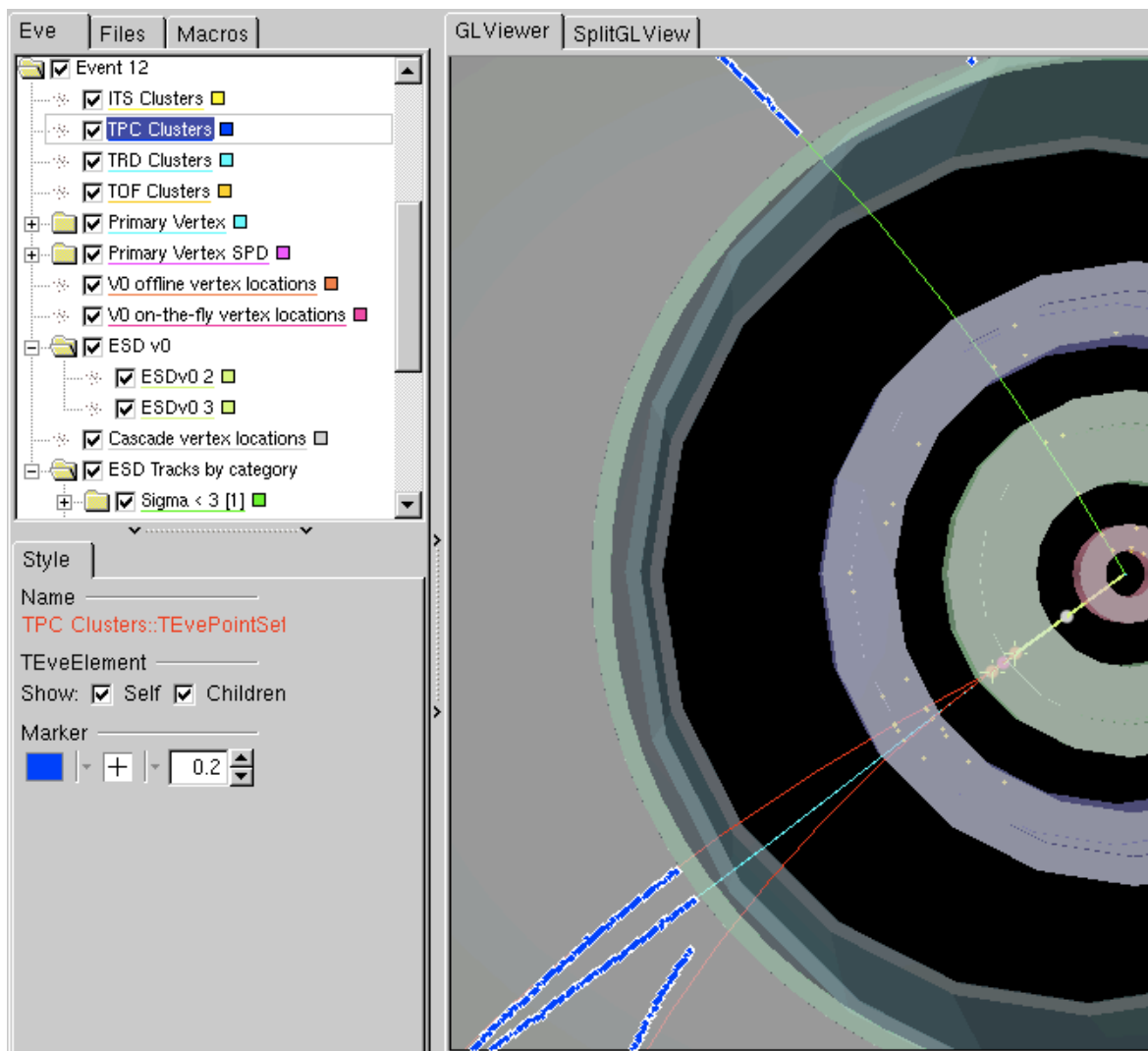


Visualization of the positions

● ITS Clusters

What ~~is~~ was the status ?

Some of the features are already implemented end of October

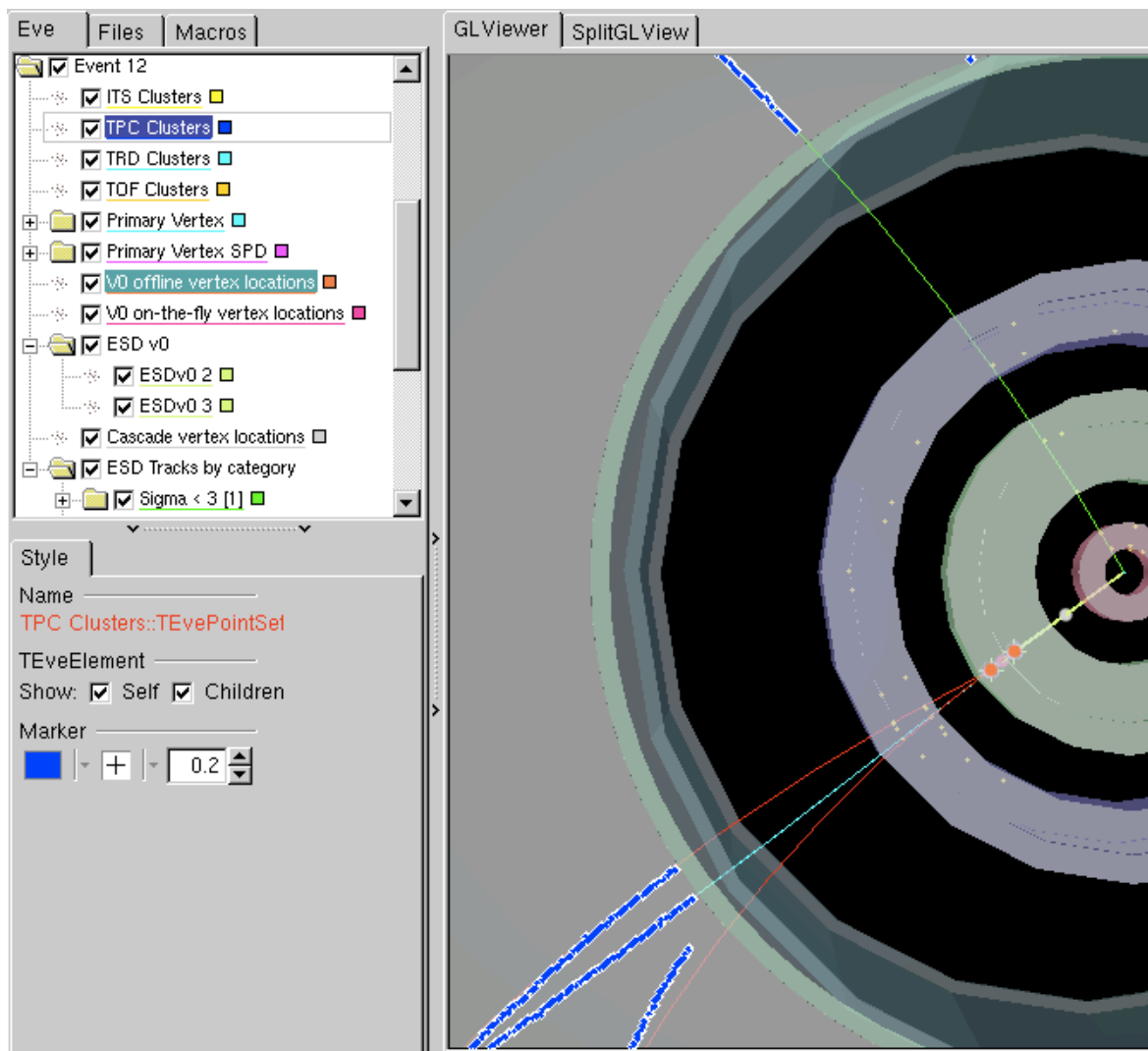


Visualization of the positions

- ITS Clusters
- TPC Clusters

What is the status ?

Some of the features are already implemented end of October

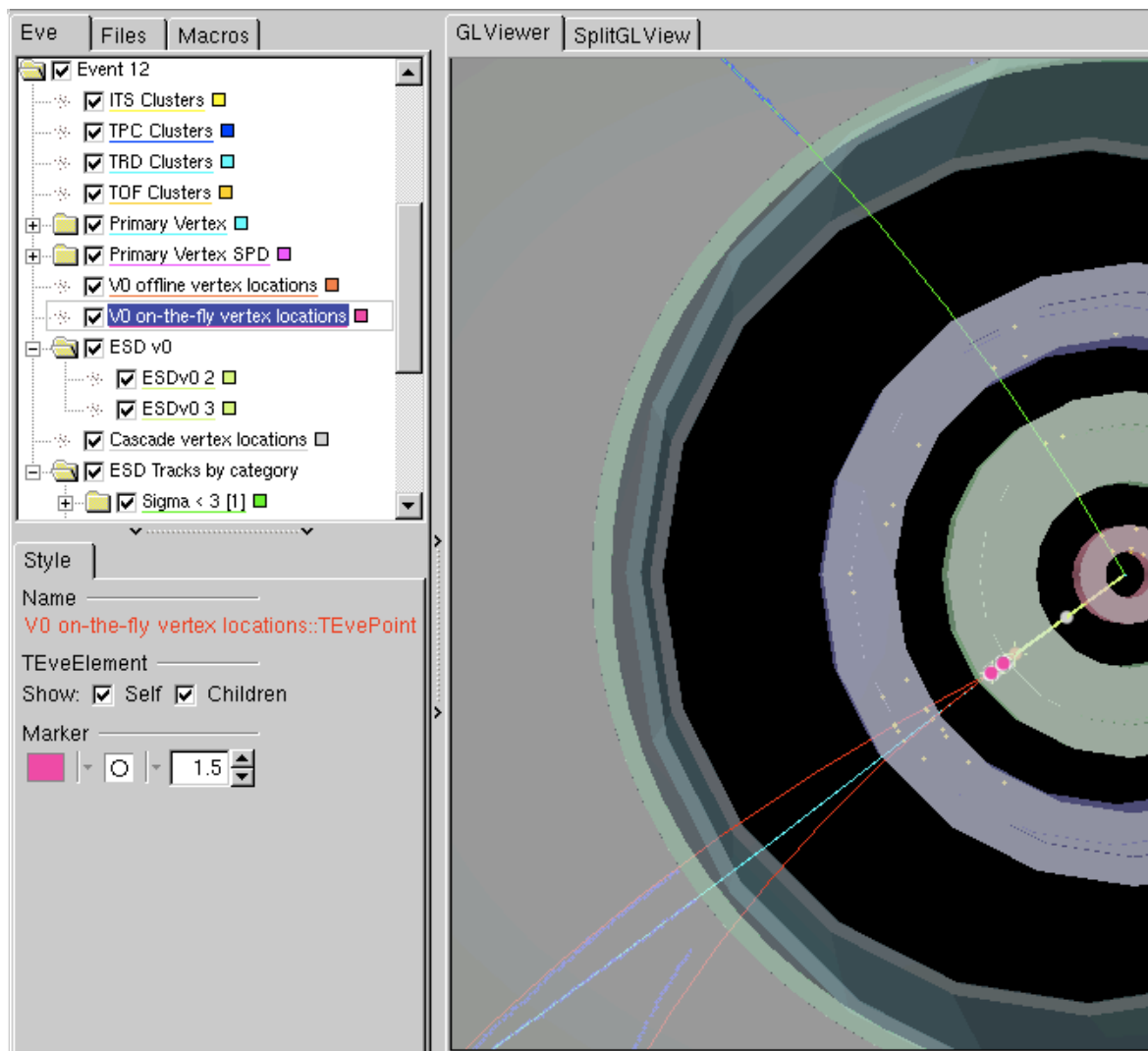


Visualization of the positions

- ITS Clusters
- TPC Clusters
- V0 Offline

What ~~is~~ was the status ?

Some of the features are already implemented end of October

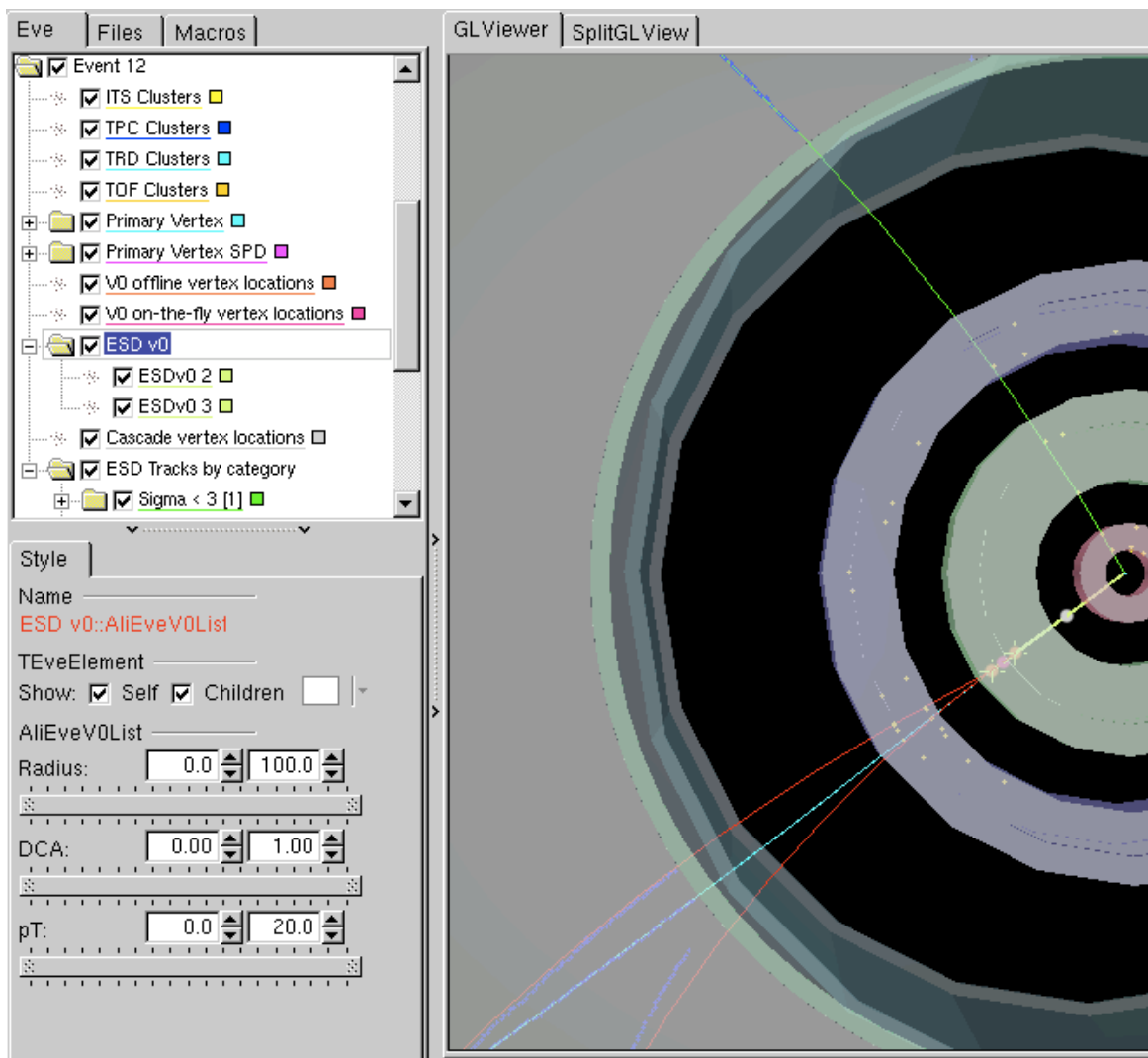


Visualization of the positions

- ITS Clusters
- TPC Clusters
- V0 Offline
- V0 On-the-fly

What is the status ?

Some of the features are already implemented end of October

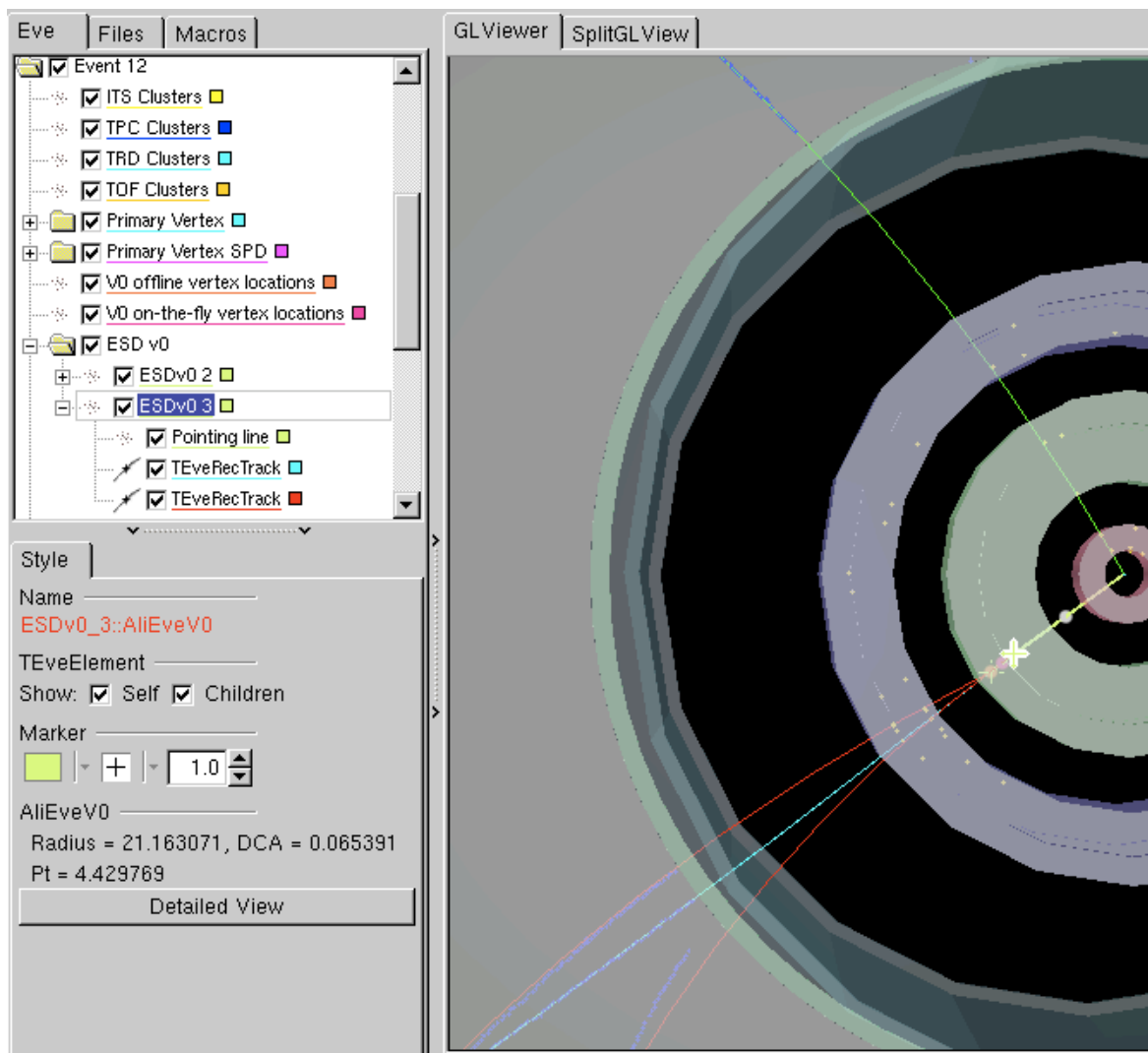


Selections for the V0s

- Radius
- DCA between daughters
- p_T

What is the status ?

Some of the features are already implemented end of October



Selections for the V0s

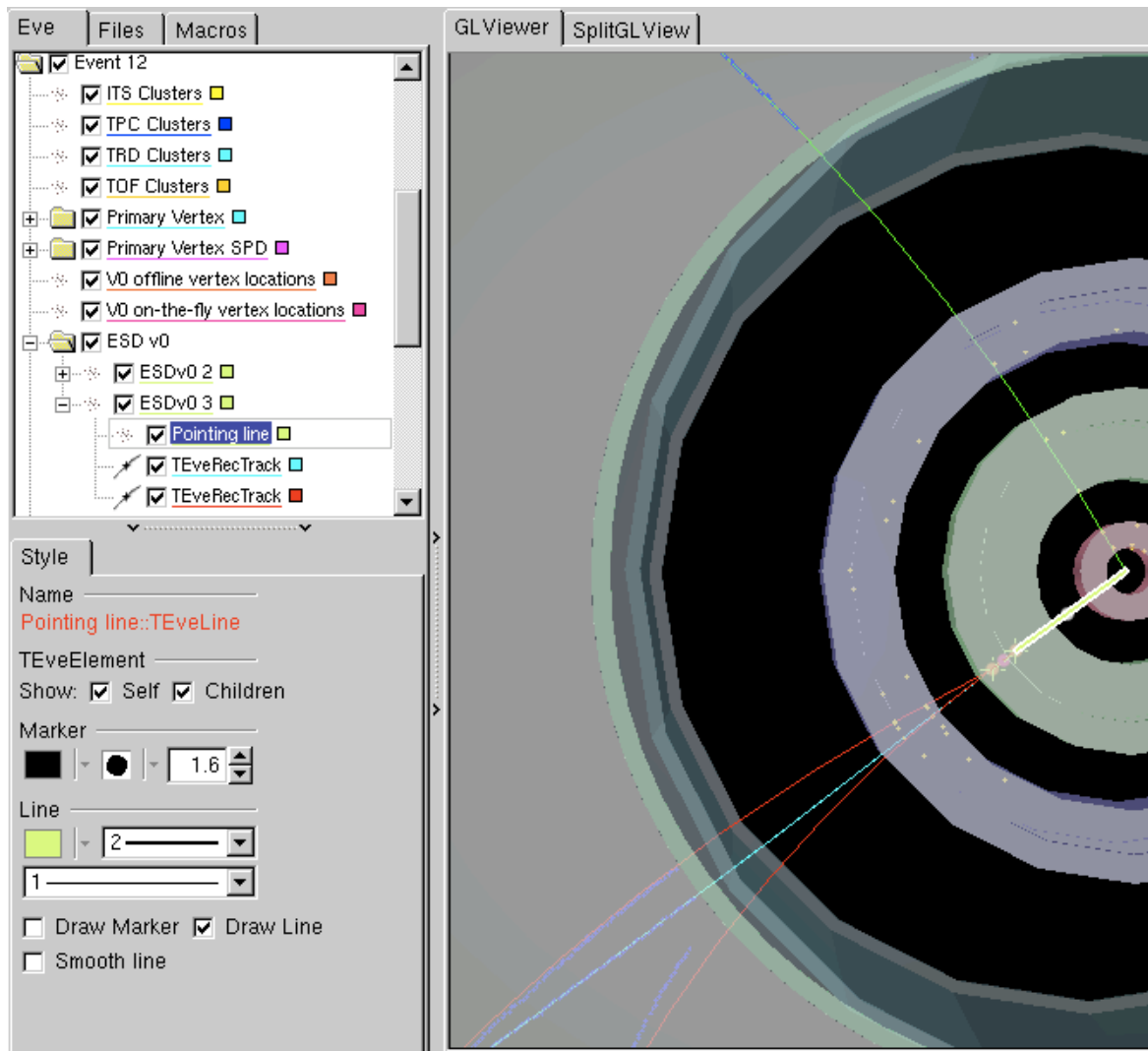
- Radius
- DCA between daughters
- p_T

Information for each V0

- Values for selections

What ~~is~~ was the status ?

Some of the features are already implemented end of October



Selections for the V0s

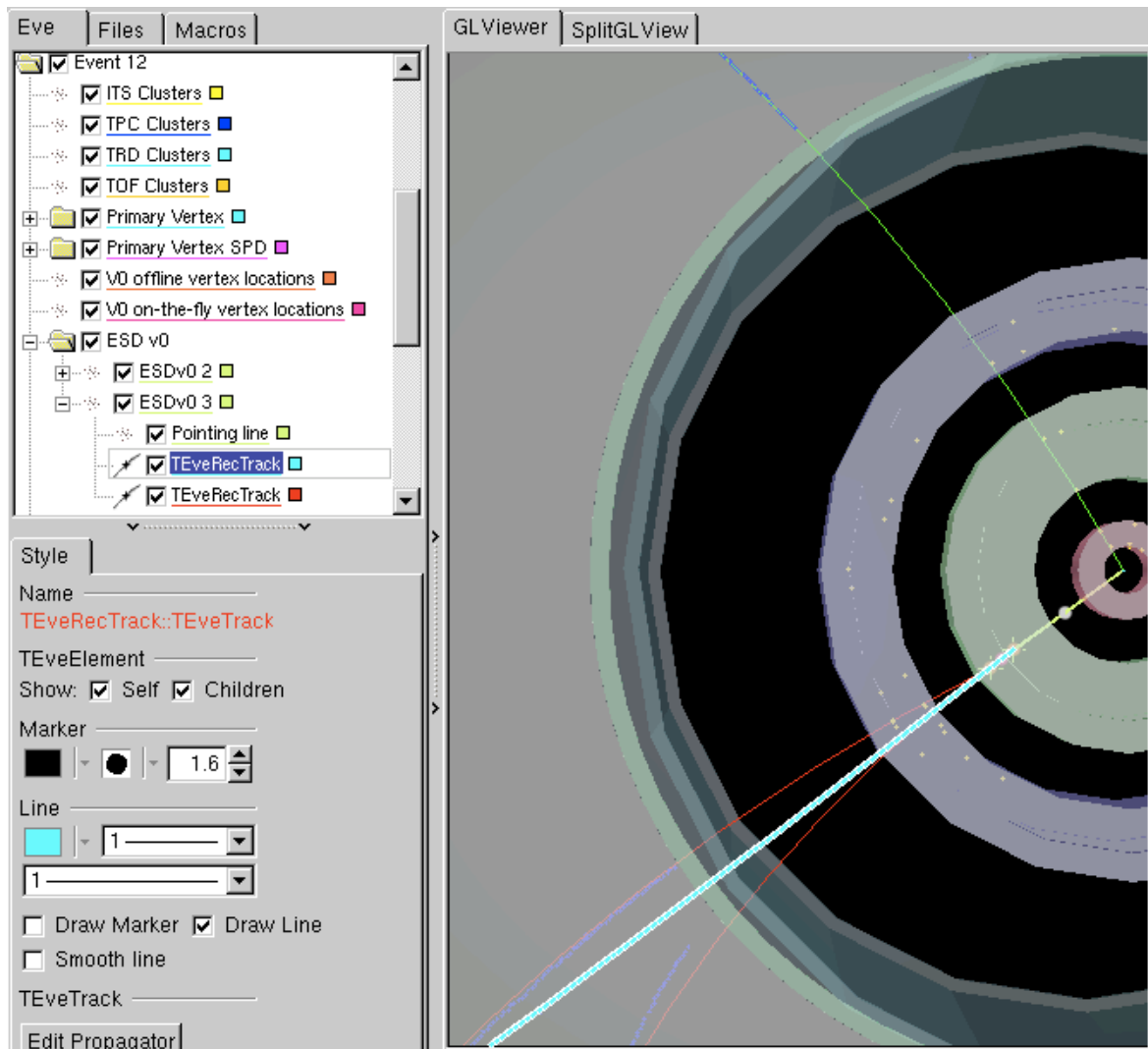
- Radius
- DCA between daughters
- p_T

Information for each V0

- Values for selections
- Pointing line

What is the status ?

Some of the features are already implemented end of October



Selections for the V0s

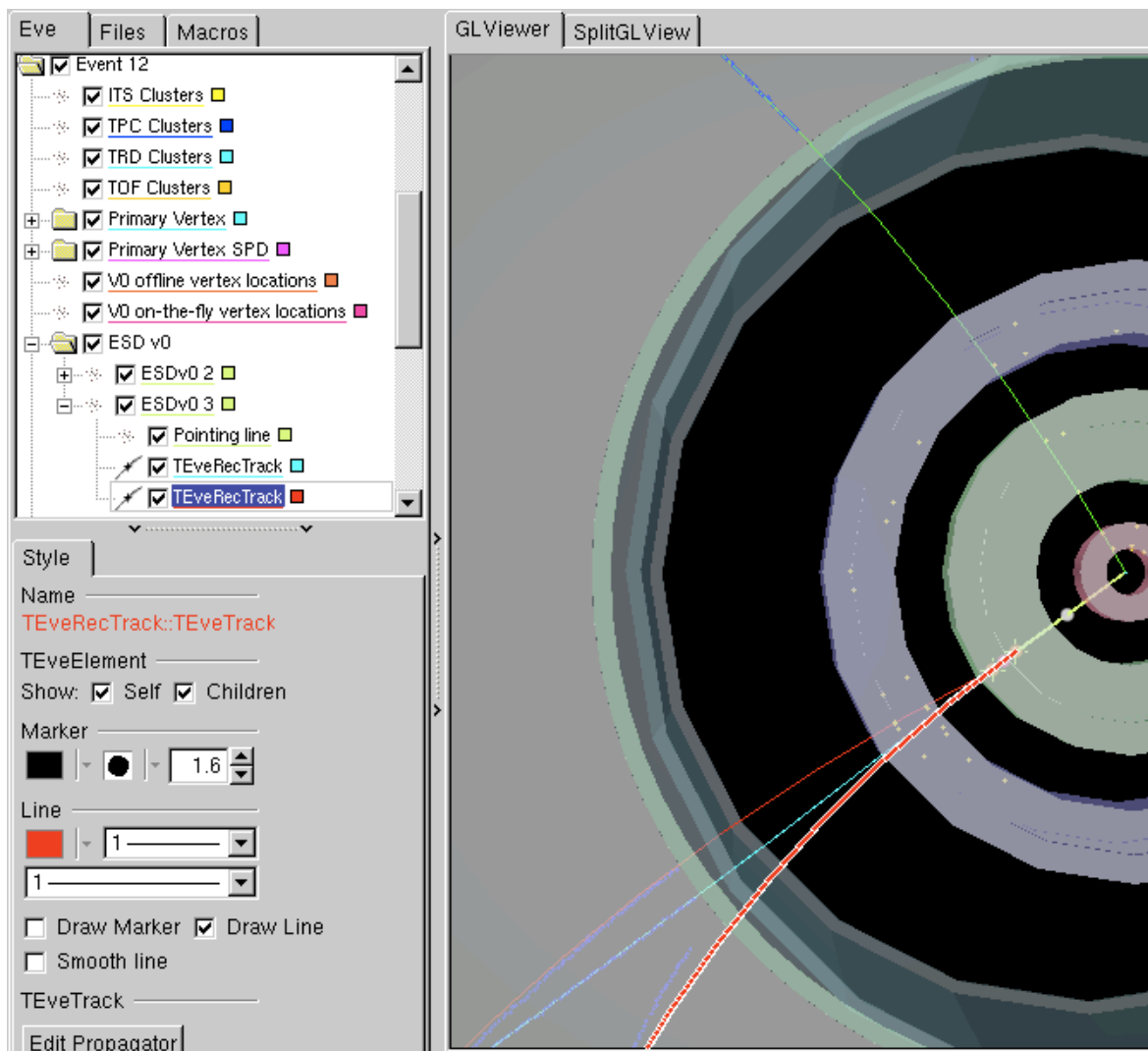
- Radius
- DCA between daughters
- ρ_T

Information for each V0

- Values for selections
- Pointing line
- Negative daughter track

What ~~is~~ was the status ?

Some of the features are already implemented end of October



Selections for the V0s

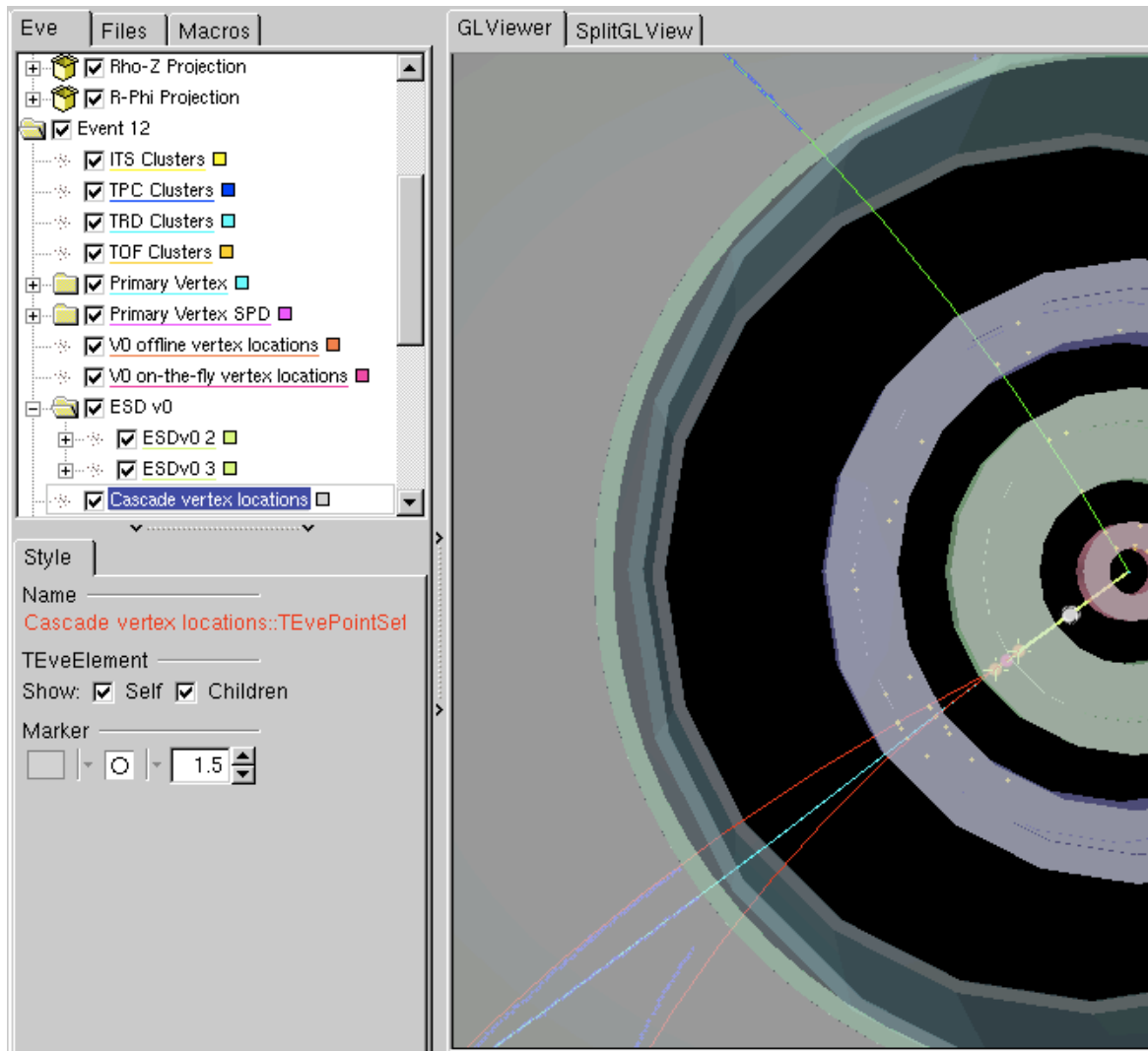
- Radius
- DCA between daughters
- p_T

Information for each V0

- Values for selections
- Pointing line
- Negative daughter track
- Positive daughter track

What ~~is~~ was the status ?

Some of the features are already implemented end of October



Selections for the V0s

- Radius
- DCA between daughters
- p_T

Information for each V0

- Values for selections
- Pointing line
- Negative daughter track
- Positive daughter track

Position of the Cascades

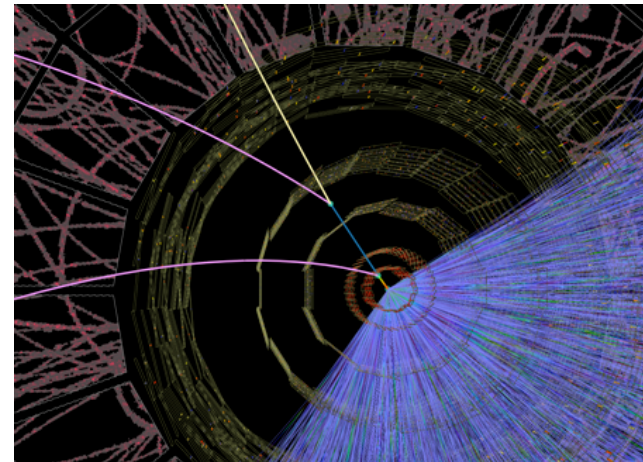
Former Prospects

For the V^0 s

- implementation of cursors for all the selections
- propagate the DCAs to the primary vertex;
- detailed views (bending plane and decay plane);
- investigate possible refit.

For the Cascades

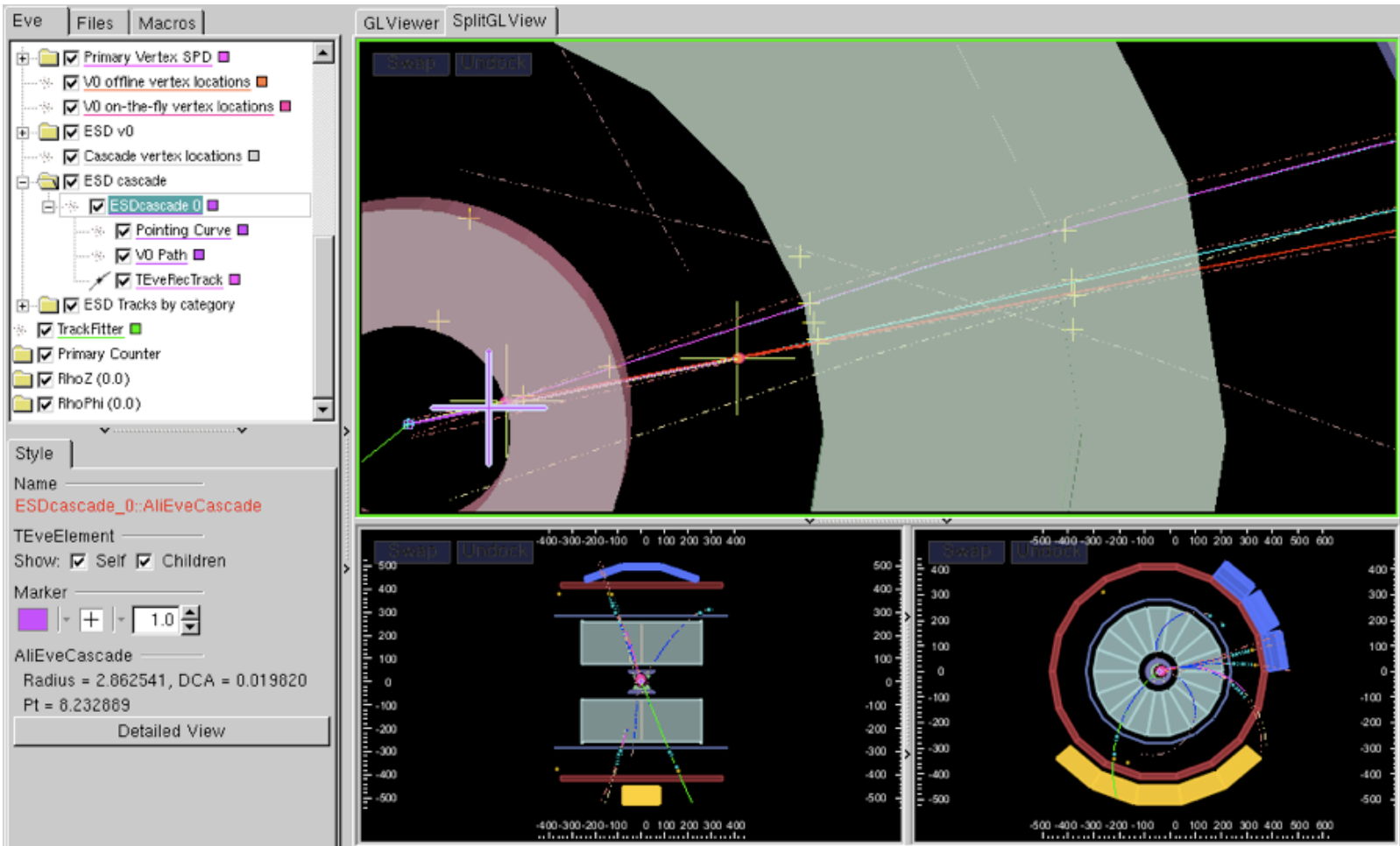
- link the V^0 daughter;
- same features than for V^0 .



What was implemented since then ?

Some implementations are related to Cascade visualization

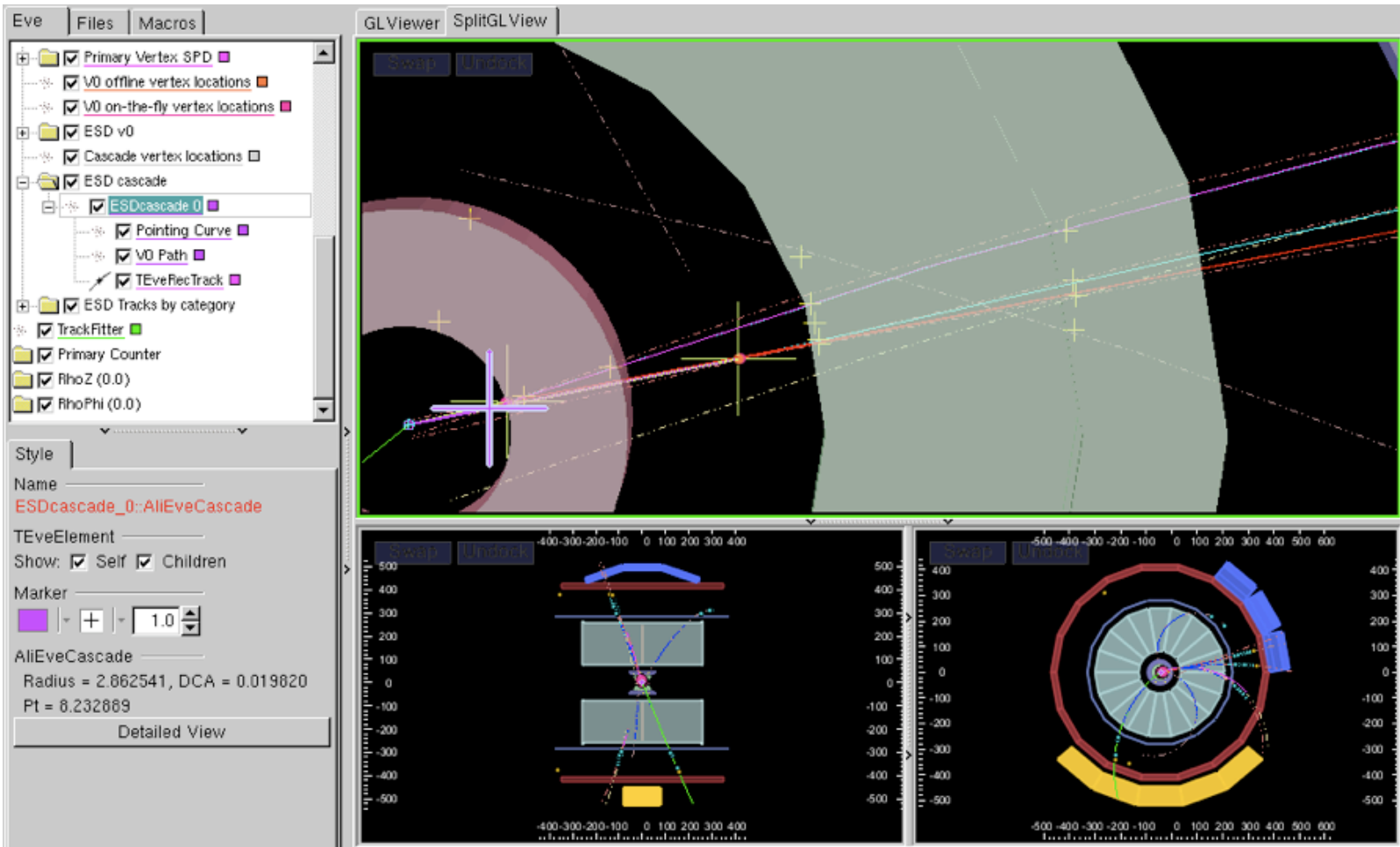
Visualization of the cascade



What was implemented since then ?

Some implementations are related to Cascade visualization

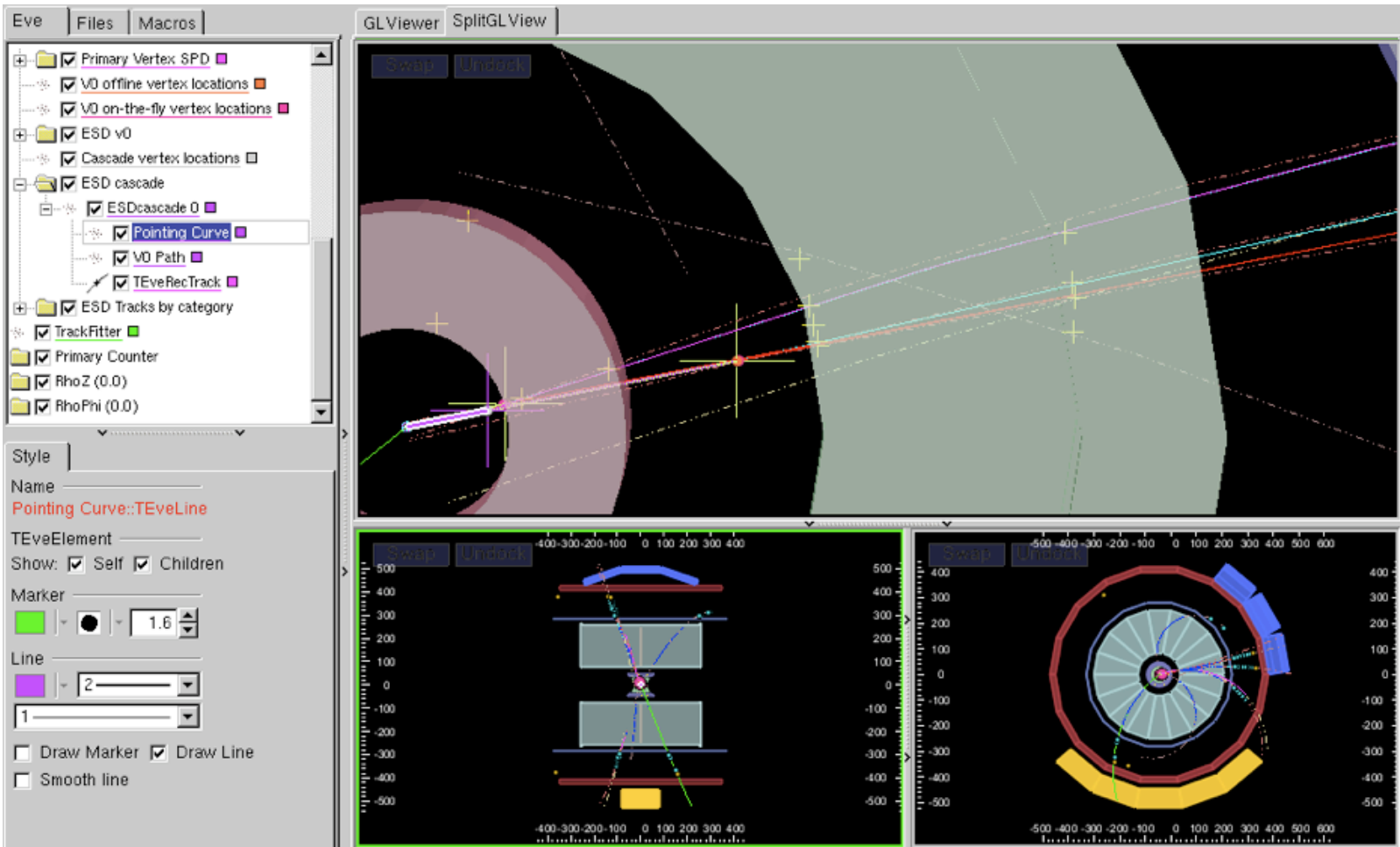
Visualization of the cascade ● Location



What was implemented since then ?

Some implementations are related to Cascade visualization

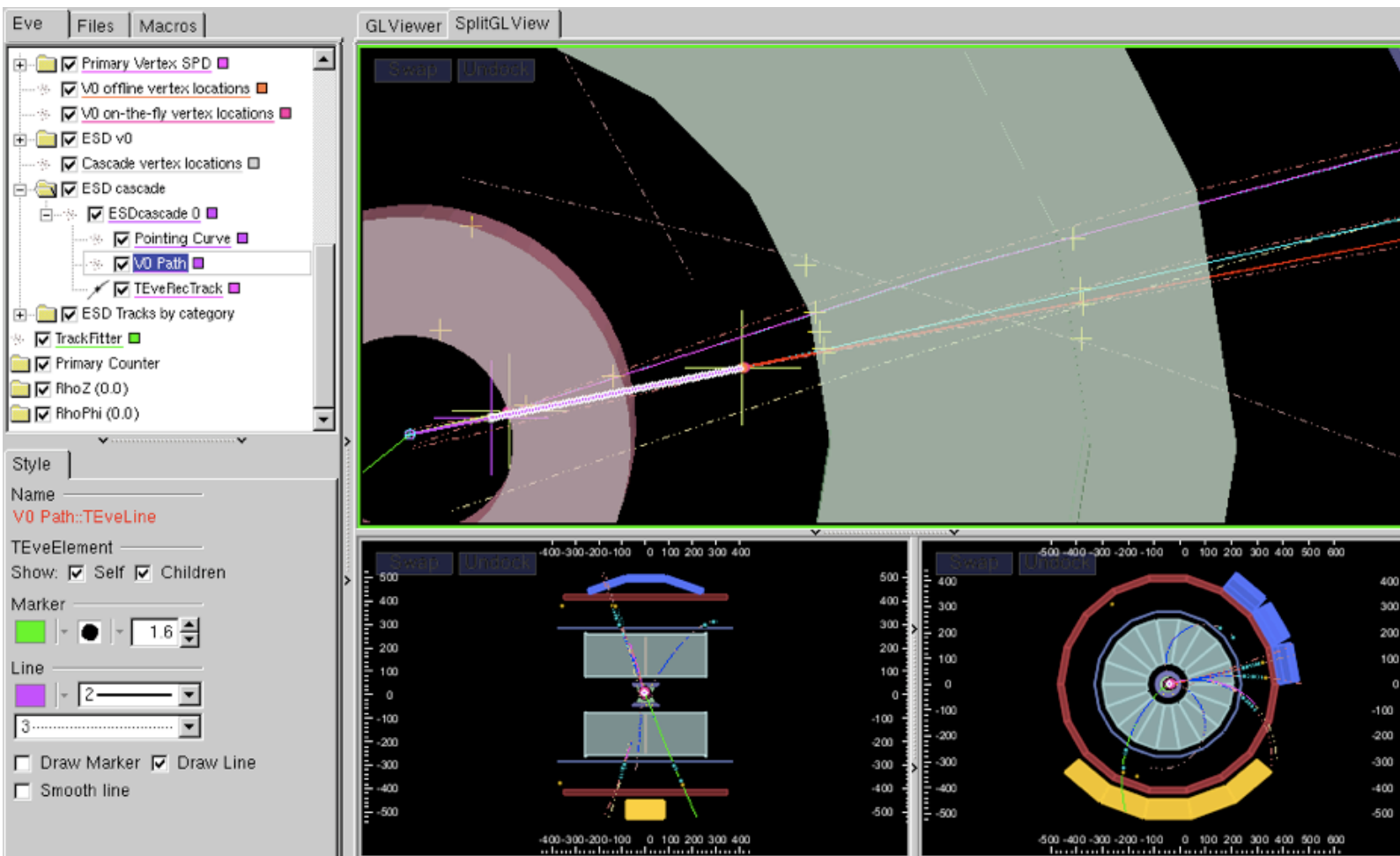
Visualization of the cascade ● Location ● Pointing curve



What was implemented since then ?

Some implementations are related to Cascade visualization

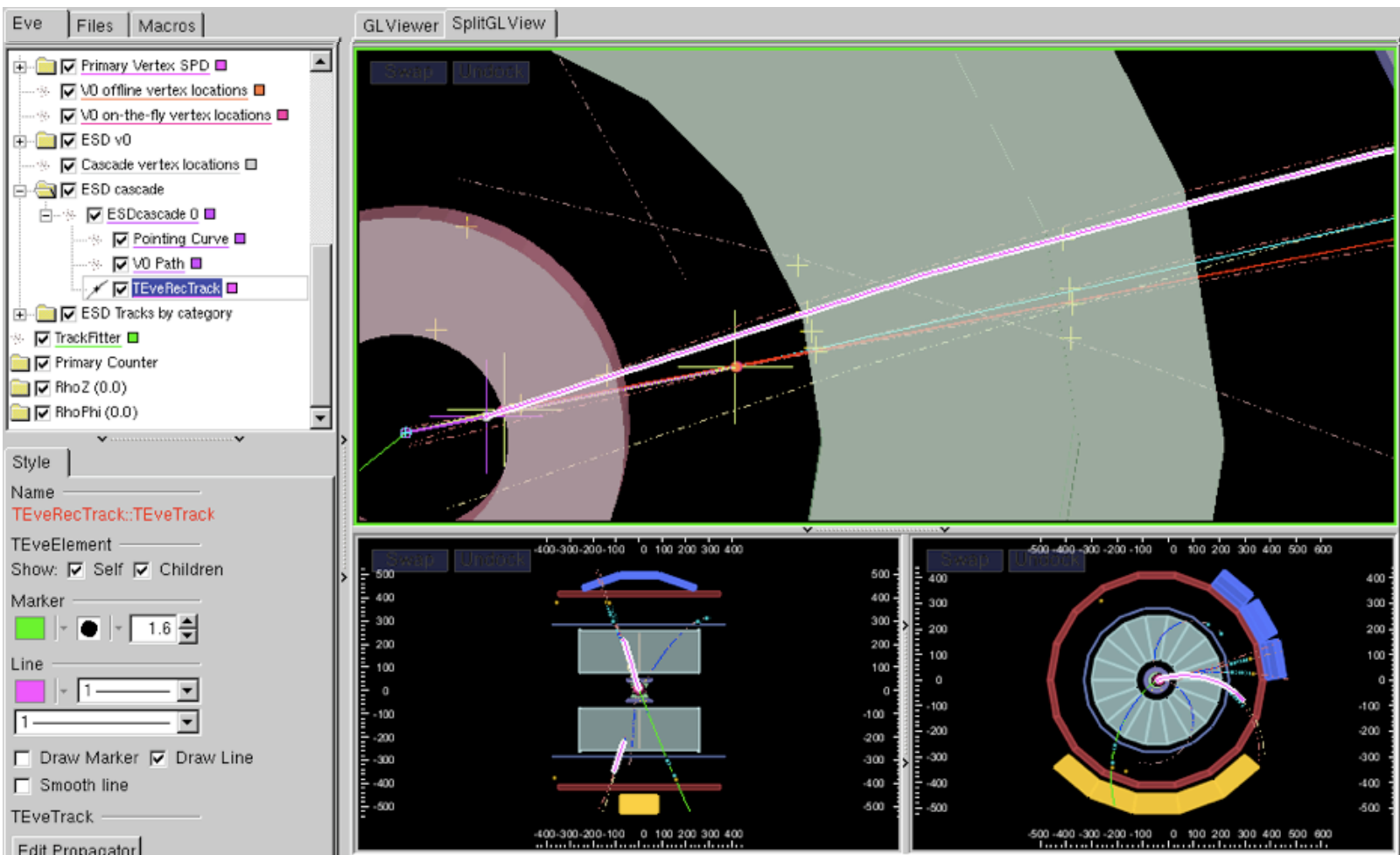
Visualization of the cascade ● Location ● Pointing curve ● V0 Path



What was implemented since then ?

Some implementations are related to Cascade visualization

Visualization of the cascade ● Location ● Pointing curve ● V0 Path ● Bachelor Eve Track



For the V^0 s (B.H. with M.T. and A.D)

- invariant mass calculations;
- specific views (bending plane and decay plane);
- investigate possible refit.

For the Cascades (by A.M.)

- pointing curve not line ! ;
- check the momenta (at the secondary vertex);
- same features than for V^0 .

For the Kinks (by who?)

Assigned Users

| | |
|-----------------|----------------------------|
| Andrea Dainese | andrea.dainese@lnl.infn.it |
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| Matevz Tadel | Matevz.Tadel@cern.ch |

Dependencies

| |
|------|
| none |
|------|

Tasks depending on this Task

| |
|------|
| none |
|------|

Description

Read in reconstructed objects such as secondary vertices (D0, V0, cascades, Kinks) from ESD/AOD and for all these objects implement:

1. the basic representation for the full event window
 - * viewing D0 and V0 as a "two daughter" decay;
 - * viewing Cascades as a "charged bachelor + V0" decay;
2. the detailed view as a pop up
 - * viewing in a separate window with topological info;
3. selection of objects applying topological cuts
 - * dca selection;
 - * pt selection;
 - * decay radius selection.
4. interface back to AliRoot
 - * assign daughter mass hypothesis and calculate the invariant mass;
 - * calculate or get the impact parameter of the decaying particle;
 - * add or remove tracks and redo the vertex fit.

Done Date: